

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/002670

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 F02D41/00 F02B1/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 F02D F02B F02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2 633 698 A (FREDERICK NETTEL) 7 April 1953 (1953-04-07) claim 1; figures 1-4 column 2, line 45 -column 3, line 73 column 5, line 29 -column 5, line 69	1-5, 7-10, 15-19, 21
X	US 4 078 387 A (DE BOISJEAN MICHEL DE LAMBERT ET AL) 14 March 1978 (1978-03-14) abstract; claim 1; figures 1,3 column 3, line 41 -column 4, line 43 column 7, line 39 -column 8, line 25	1-3, 5, 6, 11, 13, 15-17, 19, 20, 22, 24

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

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X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the International search

25 June 2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 39 09 932 A (DAIMLER BENZ AG) 27 September 1990 (1990-09-27) abstract; claim 1; figure 1 column 1, line 68 -column 2, line 69 ---	1-3, 5, 11, 15-17, 19, 22
X	US 4 452 044 A (MATUSHIRO RYUICHI ET AL) 5 June 1984 (1984-06-05) abstract; claim 1; figure 1 column 1, line 24 -column 2, line 15 column 7, line 25 -column 7, line 53 ---	1, 3, 5, 11, 15, 17, 19, 22
A	AT 5 646 U (AVL LIST GMBH) 25 September 2002 (2002-09-25) the whole document ---	1-25
A	WO 99/42718 A (CUMMINS ENGINE CO INC) 26 August 1999 (1999-08-26) abstract page 30 -page 35 ---	1-25

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP2004/002670

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 2633698	A	07-04-1953	NONE		
US 4078387	A	14-03-1978	FR 2308784 A1 AR 212965 A1 AU 515377 B2 AU 1322376 A BE 841060 A1 CA 1049270 A1 CH 601656 A5 DE 2617709 A1 DE 2660433 C2 DK 182376 A ,B, ES 447099 A1 GB 1528069 A IN 147330 A1 IT 1060557 B JP 1040766 C JP 51130716 A JP 55031300 B NL 7604333 A ,B, NO 761408 A ,B, PL 115576 B1 SE 435645 B SE 7604593 A		19-11-1976 30-11-1978 02-04-1981 27-10-1977 25-10-1976 27-02-1979 14-07-1978 04-11-1976 01-10-1987 25-10-1976 16-06-1977 11-10-1978 02-02-1980 20-08-1982 23-04-1981 13-11-1976 16-08-1980 26-10-1976 26-10-1976 30-04-1981 08-10-1984 25-10-1976
DE 3909932	A	27-09-1990	DE 3909932 A1 FR 2644845 A1 GB 2229937 A IT 1239437 B JP 3067014 A		27-09-1990 28-09-1990 10-10-1990 02-11-1993 22-03-1991
US 4452044	A	05-06-1984	JP 57171029 A		21-10-1982
AT 5646	U	25-09-2002	AT 5646 U1 DE 10239065 A1 US 2003047148 A1		25-09-2002 03-04-2003 13-03-2003
WO 9942718	A	26-08-1999	BR 9904839 A CN 1263583 T EP 0983433 A1 JP 3421059 B2 JP 2000513788 T JP 2001020784 A WO 9942718 A1 US 6276334 B1		18-07-2000 16-08-2000 08-03-2000 30-06-2003 17-10-2000 23-01-2001 26-08-1999 21-08-2001